



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,473	01/10/2002	Anthony J. Cesaroni	33477.242985	9908
826	7590	06/09/2004	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			KOCZO JR, MICHAEL	
		ART UNIT		PAPER NUMBER
				3746

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/044,473	CESARONI ET AL.
	Examiner	Art Unit
	Michael Koczo, Jr.	3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 April 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 2,3,5-14,28 and 29 is/are pending in the application.
 4a) Of the above claim(s) 7,8,28 and 29 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 2,3,5,6 and 9-14 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 09 April 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

This action is in response to applicant's amendment of April 9, 2004.

The prior Office action stated that claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims. This indication of conditional allowability was erroneous and is hereby withdrawn. Any inconvenience this may have caused applicant is sincerely regretted. According to MPEP 803.02 "should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim will be extended. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a non-elected species, the Markush-type claim shall be rejected".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 5 recites a catalyst for decomposing the hydrogen peroxide. Claim 6, which depends on claim 5, recites the use of heat for decomposing the hydrogen peroxide. There is no description in the specification, now or as originally filed, of a propulsion system which uses a

catalyst and heat for decomposing the hydrogen peroxide. The specification clearly states that a catalyst and heat are alternative modes for decomposing the hydrogen peroxide (see page 3, lines 21 to 23; page 6, lines 7 to 18; and page 8, lines 30 to 33).

Claim Rejections - 35 USC § 102

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Ueno et al. Ueno et al. disclose a liquid fuel section 26 which contains hydrogen peroxide, a solid fuel section 16 (see figure 6), and an injector system (apertures 58a) located between the liquid fuel section and the solid fuel section for introducing a stream of decomposed hydrogen peroxide into the solid fuel section. The catalyst may be silver (col. 4, l. 54).

Claim Rejections - 35 USC § 103

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Ayers et al. Ueno et al. disclose the invention substantially as claimed. However, Ueno et al. do not disclose the concentration of hydrogen peroxide. Ayers et al. disclose a method of operating a hybrid rocket wherein the concentration of hydrogen peroxide is 98 to 99 percent during the ignition stage, and can be from 0 to 99 percent upon ignition (col. 3 para. 1). In view of this teaching, it would have been obvious to use a concentration of hydrogen peroxide of from 70 to 90 percent.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Smith et al. Smith et al. disclose that it is known in the prior art to mix an oxidizer such as ammonium dinitramide with a liquid oxidizer such as hydrogen peroxide (col. 2, lines 6

and 39). In view of this teaching, it would have been obvious to mix ammonium dinitramide with the hydrogen peroxide of Ueno et al.

Claims 11 to 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Wagaman. Wagaman discloses a composition for a hybrid rocket which uses an oxidizer composed of hydrogen peroxide and ammonium nitrate which results in lower freezing points. In view of this teaching, it would have been obvious to include ammonium nitrate in the oxidizer solution of Ueno et al.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. in view of Malin et al. Malin et al. disclose using stabilizers for preventing degradation of hydrogen peroxide which is used as an oxidizer for a rocket. In view of this teaching, it would have been obvious to provide the hydrogen peroxide of Ueno et al. with a stabilizer.

Conclusion

Claims 7, 8, 28 and 29 stand withdrawn from further consideration as being drawn to non-elected inventions and/or species.

Any inquiry relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is 703-306-5648.

Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Koczo, Jr. whose telephone number is 703-308-2630. The examiner can normally be reached on M-F; 7:30-4:00.

Art Unit: 3746

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Koczo, Jr.
Primary Examiner
Art Unit 3746